

REMARKS

In the specification, the first paragraph following the title has been amended to include the application number and filing date of the German priority document.

The drawings have been objected to for allegedly not showing every feature of the invention specified in the claims. Applicants respectfully submit that the features referred to, such as the woven fiber material and the catalytically active and inactive channels are shown in the figures to the extent possible and to the extent necessary for an understanding of the invention. In particular, Fig. 6 illustrates a material web 16 that forms the walls of several adjoining channels pervading the catalyzer structure. The particular material that makes up this web, such as a woven fiber material, does not admit of illustration, and such an illustration is not necessary for the understanding of the invention. Furthermore, because the particular material that makes up the web 16, such as a porous woven fiber material, is a known material, and therefore does not require illustration for an understanding of the invention (MPEP § 608.02). Similarly, catalytically active and inactive zones are clearly shown in Fig. 2 and described at paragraph [0055] in the specification. The presence of a coating of a catalyst in the zones that comprise catalytically active channels does not admit of illustration, and such an illustration of the catalyst coating is not necessary for an understanding of the invention. Accordingly, Applicants respectfully submit that in accordance with MPEP § 608.02, the drawings do provide sufficient illustration of all claimed features.

Claims 1, 9, 10, 18, 19 and 24 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by EP '577. Claims 1, 9, 11, 18, 19 and 24 are also rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hüttenhofer et al. The Office Action states that the recitation that the catalyst operates as a "burner" has not been given patentable weight because the recitation occurs in the preamble. The Office Action further states that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.

Applicants respectfully submit that amended independent claim 1 now clarifies that ~~a catalytically operating burner mounted in a gas turbine system comprises a fuel injection device, a catalyzer structure, a stabilization zone and a final combustion zone, and~~ therefore operation of the catalyst as a burner should be given patentable weight. More particularly, amended independent claim 1 is directed to a catalytically operating burner mounted in a gas turbine system, wherein the burner comprises a fuel injection device that injects fuel into a supplied gas stream that contains an oxidant, a catalyzer structure that is arranged downstream from the fuel injection device, and through which the fuel/gas mixture or reaction mixture can flow, whereby a catalyst that initiates a combustion reaction of the reaction mixture is provided inside the catalyzer structure. A stabilization zone is arranged downstream from the catalyzer structure, and changes into a final combustion zone in which the actual combustion reaction of the reaction mixture or a

homogenous gas phase reaction takes place, wherein the hot combustion gases generated in the final combustion zone by the homogenous gas phase reaction can be fed to a downstream turbine. A heat-resistant carrier material forms the walls of several adjoining channels that pervade the catalyzer structure in a longitudinal direction and permit the gaseous reaction mixture to flow through the catalyzer structure. The walls are at least partially coated with the catalyst. The catalyzer structure has an inlet end and an outlet end, and communicating openings are constructed in the walls through which the adjoining channels communicate with each other.

In contrast to the Applicants' claimed invention, EP '577 discloses a catalyst that is adapted to dispose of harmful components from the exhaust gas of a combustion engine. ~~Such an exhaust gas catalyst is not able to initiate a combustion reaction of a usual reaction~~ mixture flowing through a burner. The exhaust gas catalyst disclosed in EP '577 would not work sufficiently in a burner. Accordingly, Applicants respectfully submit that the exhaust gas catalyst disclosed in EP '577 does not identically disclose or suggest the novel combination of features now clearly set forth in amended independent claim 1. The catalyst provided inside the catalyzer structure of independent claim 1 initiates a combustion reaction of the reaction mixture. A stabilization zone arranged downstream from the catalyzer structure changes into a final combustion zone in which the actual combustion reaction of the reaction mixture takes place. Hot combustion gases generated in the final combustion zone are then fed to a downstream turbine.

Because the exhaust gas catalyst disclosed in EP '577 does not initiate a combustion reaction in the mixture flowing through the catalyzer, the structure disclosed in EP '577 is clearly not capable of performing the same functions as the catalyzer burner of the Applicants' claimed invention, and does not disclose or suggest the claimed structure.

Hüttenhofer discloses a catalyst adapted for reducing nitrogen oxides contained in a gas mixture. A gas mixture which contains nitrogen oxides is typically an exhaust gas of a combustion engine. A reaction mixture of a fuel and an oxidant would not contain nitrogen oxides. The catalyst of Hüttenhofer includes titanium dioxide and one or more of several different additives, and would not have enough catalytic activity to initiate a combustion reaction of a reaction mixture flowing through a burner. Accordingly, Hüttenhofer neither discloses nor suggests a catalytically operating burner wherein the burner comprises a fuel injection device that injects fuel into a supplied gas stream that contains an oxidant, a catalyzer structure that is arranged downstream from the fuel injection device, and through which the fuel/gas mixture or reaction mixture can flow, whereby a catalyst that initiates a combustion reaction of the reaction mixture is provided inside the catalyzer structure, and a stabilization zone that is arranged downstream from the catalyzer structure, and which changes into a final combustion zone in which the actual combustion reaction of the reaction mixture takes place, wherein the hot combustion gas generated in the final combustion zone can be fed to a downstream turbine. Applicants therefore submit that the catalyst disclosed in Hüttenhofer is not capable of performing the function performed by

the Applicants' novel combination of features, and does not identically disclose or suggest the novel combination of features now clearly recited in amended independent claim 1.

For at least the above reasons, Applicants respectfully submit that independent claim 1, and hence dependent claims 2-23, are not anticipated by either EP '577 or by Hüttenhofer. Withdrawal of all rejections of these claims under 35 U.S.C. § 102(b) is therefore respectfully requested.

Claims 6-8 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over EP '577 or Hüttenhofer, in view of Dalla Betta et al. and Betta et al. As discussed above with regard to independent claim 1, Applicants submit that none of the applied references disclose or suggest a catalytically operating burner having the novel combination of features now clearly recited in amended independent claim 1. In particular, neither of the secondary references, Dalla Betta et al. or Betta et al., are relied upon for a disclosure of a catalyst that initiates a combustion reaction and is provided inside the catalyzer structure. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103 is respectfully requested.

Amended independent claim 24 is directed to a process of using a catalyzer structure, comprising the steps of providing a catalyzer structure wherein walls of the catalyzer structure are coated at least in part with a catalyst, and flowing a gaseous reaction mixture through the catalyzer structure whereby the catalyst initiates a combustion reaction of the reaction mixture inside the catalyzer structure. A stabilization zone arranged downstream from the catalyzer structure changes into a final combustion zone in which the

actual combustion reaction of the reaction mixture takes place. As discussed above with regard to amended independent claim 1, Applicants respectfully submit that none of the applied prior art references disclose or suggest this novel combination of features.

Accordingly, amended independent claim 24 is also patentable over the prior art of record.

Applicants respectfully request that a timely notice of allowance be issued in this case.

Respectfully submitted,

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